SONY

COLOR REAR VIDEO PROJECTOR

KPR-4620

(CABLE COMPATIBLE PROJECTION TV)

OPERATING INSTRUCTIONS

Before operating the set, please read this manual thoroughly, and retain it for future reference.

OWNER'S RECORD

The model and serial numbers are located at the rear. Record the serial number in the space provided below. Refer to them whenever you call upon your Sony dealer regarding this product.

Model No. KPR-4620 Serial No. _____

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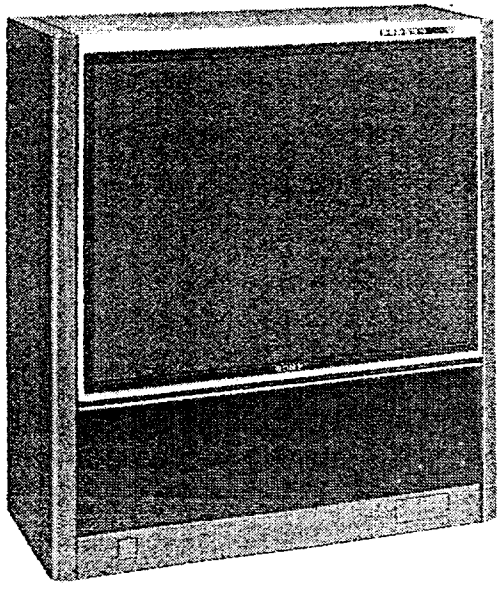

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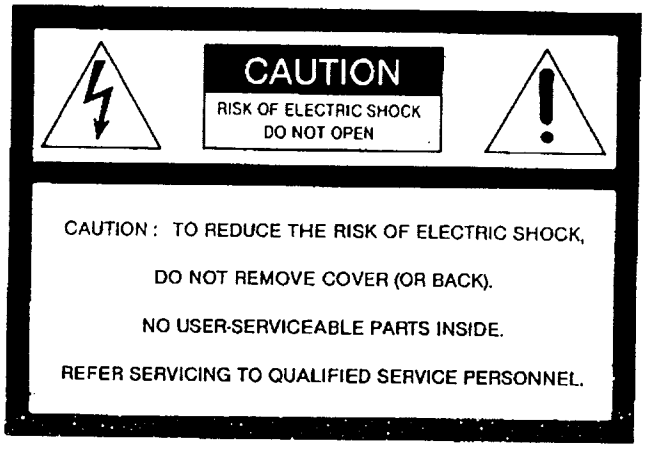
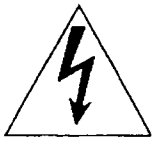
WARNING

To prevent fire or shock hazard, do not expose the set to rain or moisture.


CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN
CAUTION : TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER (OR BACK).
NO USER-SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

CAUTION
TO PREVENT ELECTRIC SHOCK, DO NOT USE THIS POLARIZED AC PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

INFORMATION
This equipment generates and uses radio frequency energy and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause interference to radio and television reception. It has been type tested and found to comply with the limits for a Class B computing device in accordance with the specifications in Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

Reorient the receiving antenna
Relocate the equipment with respect to the receiver
Move the equipment away from the receiver
Plug the equipment into a different outlet so that equipment and receiver are on different branch circuits.

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet prepared by the Federal Communications Commission helpful:
"How to Identify and Resolve Radio-TV Interference Problems". This booklet is available from the U.S. Government Printing Office, Washington, DC 20402, Stock No. 004-000-00345-4.

The shielded interface cable recommended in this manual must be used with this equipment in order to comply with the limits for a computing device pursuant to Subpart J of part 15 of FCC Rules.

PRECAUTIONS

SAFETY

- Operate the set only on 120 V AC.
- Should any liquid or solid object fall into the cabinet, unplug the set and have it checked by qualified personnel before operating it any further.
- Unplug the set from the wall outlet if it is not going to be used for several days or more. To disconnect the cord, pull it out by the plug. Never pull the cord itself.

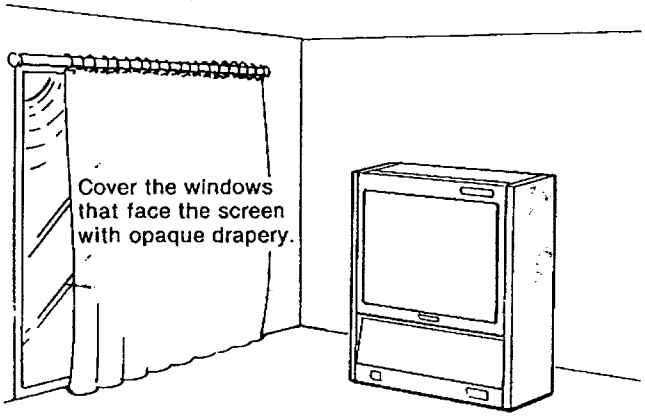
INSTALLATION

- To prevent internal heat build-up, do not block the ventilation openings.
- Do not install the set in a hot or humid place or in a place subject to direct sunlight, excessive dust or mechanical vibration.
- Avoid operating the projection TV at temperatures below 5°C (41°F).
- After the set has been transported from a cold location directly to a warm location, or if the room temperature has changed suddenly, pictures may be blurred or show poor color over portions of the picture. This is because moisture has condensed on the mirrors or lenses inside the projector. Wait until the moisture evaporates.
- Avoid placing the set on a slanting or uneven floor.

ILLUMINATION

- To obtain a clear picture, the screen should not be exposed to illumination or sunlight directly from the front.

Spot lighting whose light comes down from the ceiling is recommended.



It is desirable to install the projector in a room whose floors and walls are not of light-reflecting material. If these are of reflecting material, it would be desirable to change to a dark carpet or wall paper.

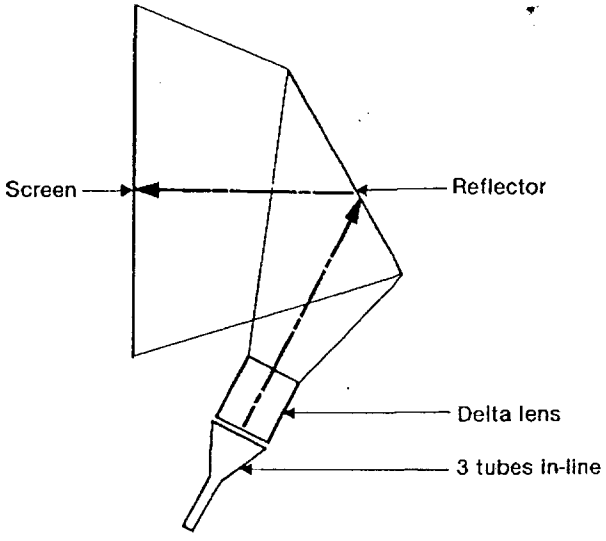
MAINTENANCE

- Save the original shipping carton and packing material; they will come in handy if you ever have to ship your set. For maximum protection, repack your set as it was originally packed at the factory.
- To keep the cabinet looking brand-new, periodically clean it with a soft cloth. Stubborn stains may be removed with a cloth slightly dampened with a mild detergent solution. Never use strong solvents such as thinner or benzine, or abrasive cleansers since these will damage the cabinet. As a safety precaution, unplug the set before cleaning it.
- To remove dust from the front of the screen, unplug the set and wipe it gently with a soft cloth slightly dampened with water or a mild detergent solution, using vertical strokes only. Then wipe it again with a dry, soft cloth. Never use solvents or thinners for cleaning purposes.
- If the picture becomes darkened after the set has been in use for a long period of time, cleaning the inside of the projector may be required. Consult qualified service personnel for this.

Use of this color rear video projector for other than private performance of programs broadcast for the use of the general public may require authorization from the transmitter and/or owner of such programs. Use with cable television transmission may require authorization from the cable system transmitter and/or program owner.

FEATURES

- Remote control color rear video projector with a multifunction Remote Commander projects TV pictures on a self-contained 46-inch screen (measured diagonally).
- A unique "folded optics" system with one reflector less than other systems provides "compact and slim" projector design.



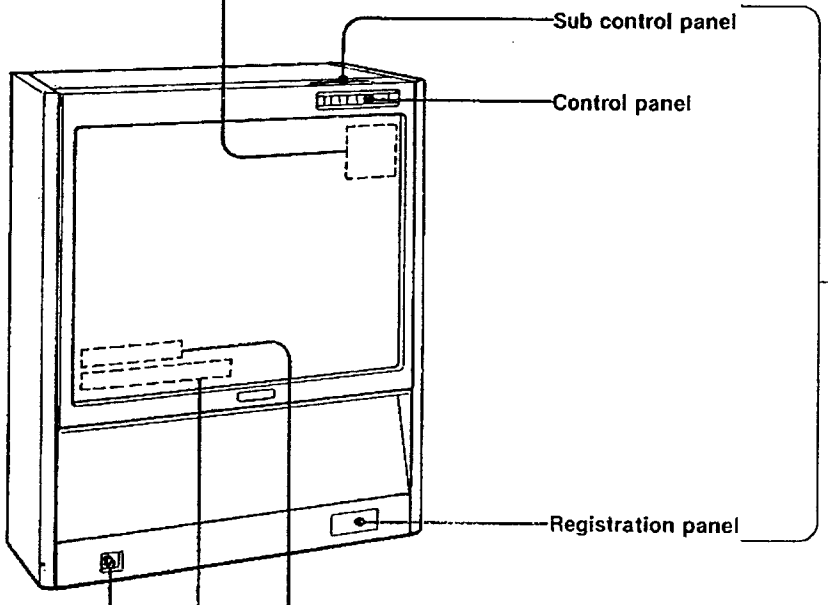
- New "Optical coupling and cooling" system remarkably improves the picture contrast.
- Two-way built-in speakers provide powerful sound reproduction.
- Built-in stereo decoder decodes MTS (Multichannel TV sound) broadcasts into left and right stereo or SAP (Second Audio Program) channels.*
- Multi-band VHF/UHF/CATV tuner receives up to 125 cable channels for total of 181 possible off-air and cable channels.
- Two built-in video and L/R audio line inputs and a new AV uniconnector allow direct hook-up to VCRs, video disc players, video games or other audio/video sources. The AV uniconnector receives combined video and L/R audio signals for one easy connection.
- Built-in video and L/R audio line outputs provide the selected output from the TV tuner or any of the equipment connected to the audio-video line inputs or the AV uniconnector.
- Built-in RGB input for higher resolution display of computer-generated text and color graphics.
- On-screen displays for easy reference to operating modes and adjustments.
- Dynamic Picture™ circuitry automatically adjusts the picture contrast to produce more detail in bright and dark areas of the scene.
- Dynamic Focus™ circuitry automatically focuses the scanning electron beam for enhanced sharpness over the entire picture, especially in corners.
- Colorpure Filter™ separately processes B/W picture information from color information to produce a dramatically sharper picture

* Depends on availability of off-air stereo broadcasts

LOCATION OF CONTROLS

For details on the use of each control, refer to the pages indicated in brackets.
See page 12 for the location of jacks and controls on the back.

On-screen display for:
- Channel numbers
- "MAIN", "SAP" or "BOTH" modes
- The selected input sources "VIDEO 1, 2 or 3", "EXT-A" or "RGB"
- The "AUX", "MUTING" or "SLEEP" indications

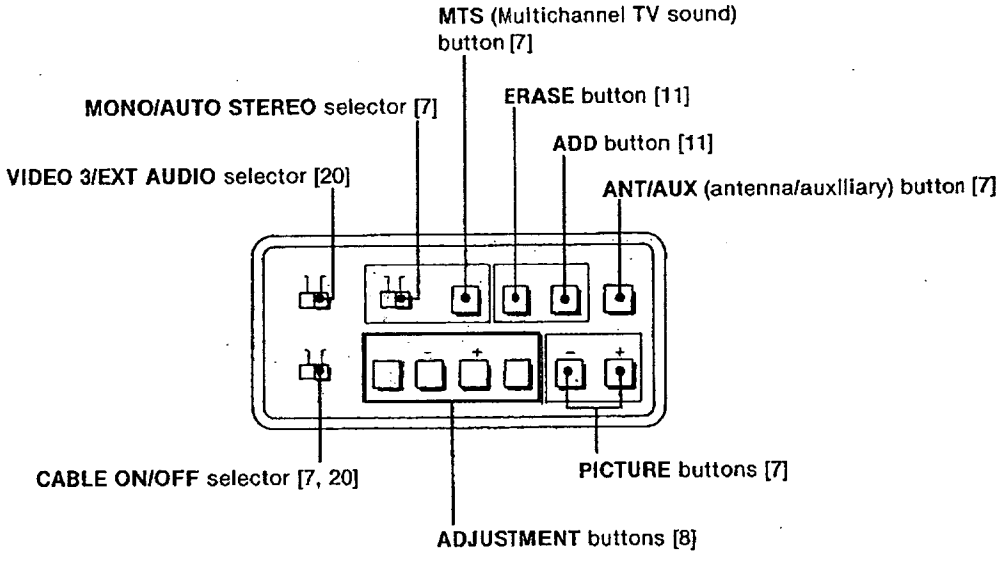


Item display
The selected item to be adjusted by the ADJUSTMENT buttons and "RESET" indicators will appear here.

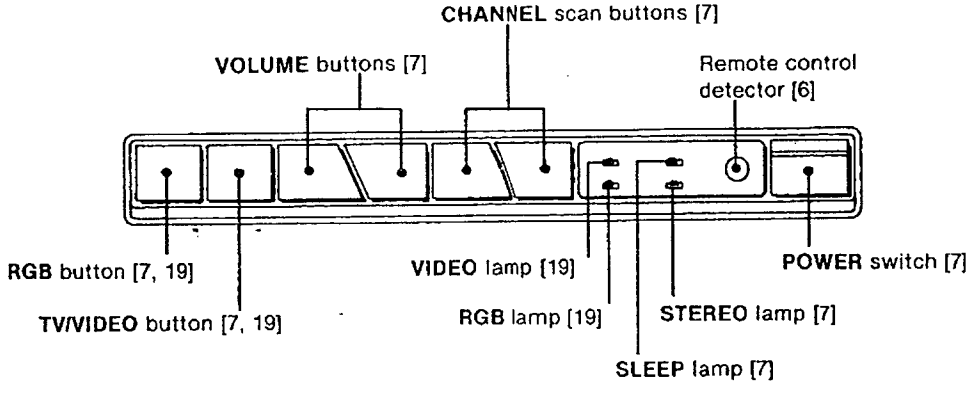
Adjustment display
Indicates the level of the various adjustments mode to the picture and sound.

VIDEO 2 IN (AV) input uniconnector (AV jack) [13] (cover removed)

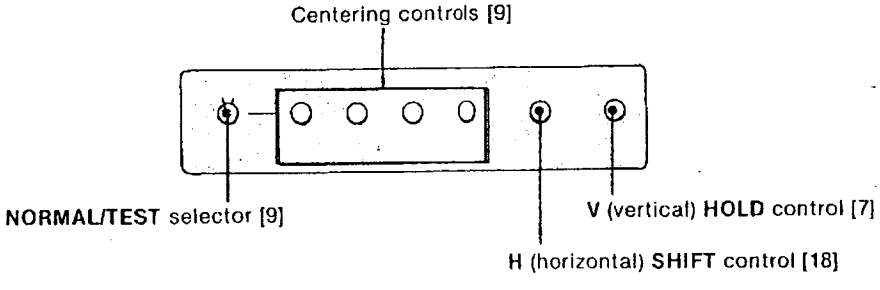
SUB CONTROL PANEL (top of the cabinet)


MTS (Multichannel TV sound) button [7]
MONO/AUTO STEREO selector [7]
ERASE button [11]
ADD button [11]
VIDEO 3/EXT AUDIO selector [20]
ANT/AUX (antenna/auxiliary) button [7]
CABLE ON/OFF selector [7, 20]
PICTURE buttons [7]
ADJUSTMENT buttons [8]

CONTROL PANEL



REGISTRATION PANEL



VIEWING TV PROGRAMS

This set is capable of receiving normal VHF and UHF broadcasts plus cable TV channels. (See "Cable TV channel chart" on this page.)

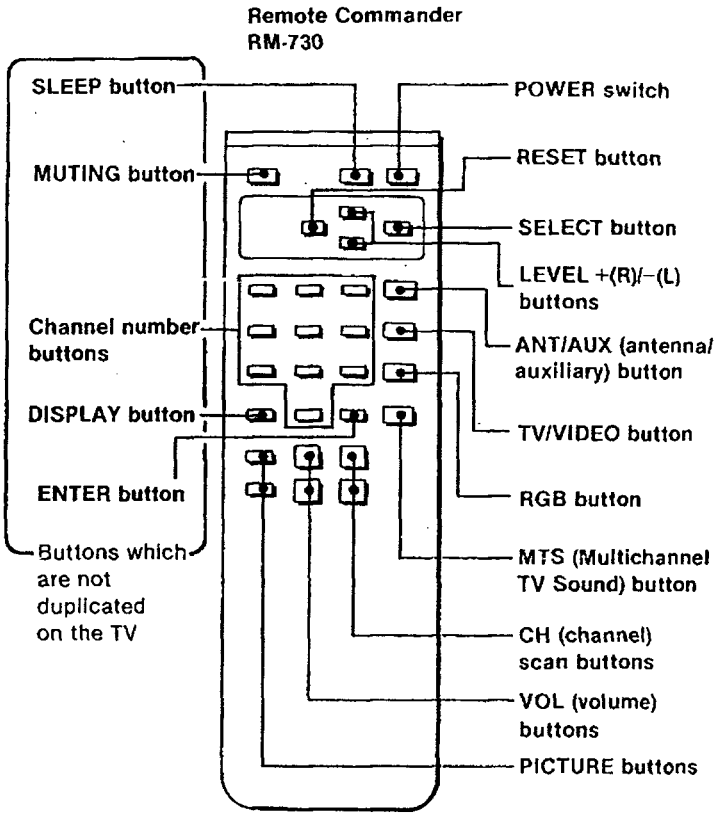
Usually the Remote Commander is all that is needed to operate the unit in everyday use.

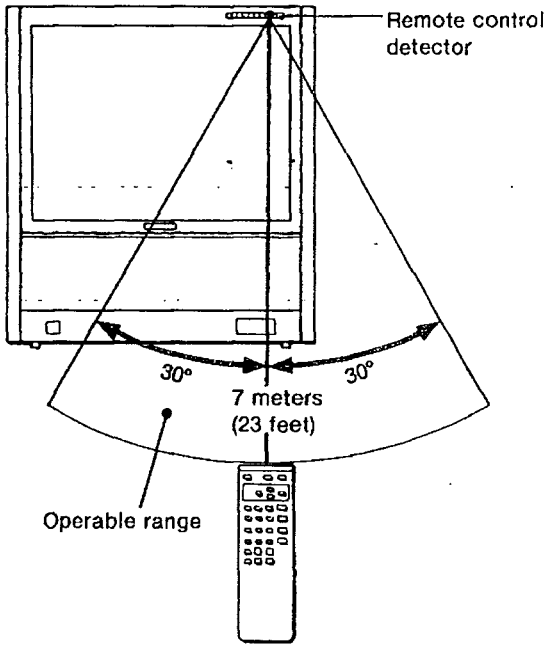
Remote Commander RM-730

1 Turn the Remote Commander face down, press the tab and lift the cover.
2 Place batteries in the Commander with the polarities in the correct directions as illustrated inside the case.
3 Replace the cover.

Notes

- Use 2 size AA batteries (IEC designation R6).
- In normal operation, batteries will last up to half a year. If the set does not operate properly, the batteries might be exhausted. Replace all with new ones.
- To avoid damage from possible battery leakage, remove the batteries for extended unused periods.
- Be sure that there are no obstructions between the Commander and the unit.
- Operable range is limited.





Cable TV channel chart*

Cable TV systems use letters or numbers to designate channels. To tune in a channel, refer to this chart.

Number on this set	1	5	6	14	15	16	17
Corresponding CATV channel	A−8	A−7	A−6	A	B	C	D

18	19	20	21	22	23	24	25	26	27	28	29	30
E	F	G	H	I	J	K	L	M	N	O	P	Q

31	32	33	34	35	36	37	38	39	.....	.....	93	94
R	S	T	U	V	W	W+1	W+2	W+3	.....	.....	W+57	W+58

95	96	97	98	99	100	101	102	.....	.....	123	124	125
A−5	A−4	A−3	A−2	A−1	W+59	W+60	W+61	.....	.....	W+82	W+83	W+84

Check with your local cable TV company for more complete information on the available channels.

* The designation of the cable TV channels conforms to the EIA/NCTA recommendation.

Preparation

Make sure the following are properly set.

- On-screen "VIDEO 1, 2 or 3", "EXT-A" or "RGB" indications and the RGB or VIDEO lamp should be off. (Press TV/VIDEO button or RGB button as many times as necessary until they go out.)
- MONO/AUTO STEREO selector on the sub control panel should be set to AUTO STEREO position.
- If the "SAP" indication appears, press the MTS button twice so that the "MAIN" indication is displayed.

Depending on the channel to be viewed, check the following and change as necessary.

- CABLE ON/OFF selector:
  —For VHF and UHF channels, set to OFF ⊓.
  —For cable TV channels, set to ON ⊓.
- On-screen "AUX" * indication:
  (Press ANT/AUX button to change as necessary.)
  —For VHF, UHF and regular cable TV channels, the indicator should be off.
  —For cable TV channels, the indicator should be displayed.

*The displays, "VIDEO", "EXT-A", "RGB" or "AUX" indicate that signals fed in through the VIDEO 1/3 IN jacks, VIDEO 2 IN AV uniconnector, the external audio jacks, the RGB multi input connector or through the AUX terminals are being received.

Operation

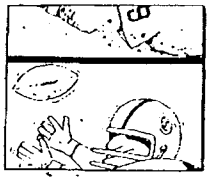
1 **Press POWER to turn on the set.**
The channel number will be displayed on the screen and the SLEEP lamp will light up for several seconds.

2 **Select channels in one of the following two ways.**
- Press the numeral(s) of the channel and then press ENTER.

Ex. To select channel 6, press 6 and then ENTER.
To select channel 125, press 1, 2, 5 and then ENTER.
If you pressed a wrong numeral, wait for a few seconds and it will disappear. Then try again.

- Press CH "+" for higher-numbered channels and "–" for lower-numbered channels. Preset channels will appear in sequence. (For presetting desired channels, see page 10.)
The channel display will remain on the screen for a few seconds. To keep the display on the screen, press DISPLAY.

3 **Adjust the volume and picture to your preference, if necessary.**
Press VOL "+" to increase volume, or "–" to decrease it.
Press PICTURE "+" to increase picture contrast, or "–" to decrease it.



If the picture rolls vertically, turn V HOLD control of the registration panel on the front side until the picture stabilizes.

V HOLD

To mute the sound immediately, press MUTING. The "MUTING" display will appear and remain on the screen. Press it again to restore the sound to its previously-set level or press VOLUME +.

To turn off the set, press POWER again.

To have the set turn off automatically after one hour, press SLEEP. The "SLEEP" display will appear on the screen a few seconds and the SLEEP lamp on the control panel will remain lit for one hour.

To cancel the sleep timer, press SLEEP again so that the "SLEEP" display disappears, or turn off the set.

LISTENING TO MULTICHANNEL TV SOUND(MTS) BROADCASTS

To receive a stereo program

Normally set the MONO/AUTO STEREO selector to AUTO STEREO. In this position, the STEREO lamp on the control panel will light up whenever a stereo broadcast is received.
To listen to the stereo sound, select the MAIN mode with the MTS button so that the on-screen MAIN indicator appears. The stereo sound will be heard from the left and right speakers.

Every push on the MTS button changes the indicator below the channel number as follows:

MAIN → SAP → BOTH → MAIN

When there is a SAP (Second Audio Program) broadcast

Select the SAP mode so that the SAP indicator will be displayed and only the SAP sound will be heard from both speakers.

To listen to both MAIN and SAP broadcasts

Select the BOTH mode so that the BOTH indicator is displayed. The MAIN and SAP sounds will come out from the left and right speakers respectively.
The MAIN sound becomes monaural(mixed) even if it is a stereo broadcast, as the sound comes only from the left speaker.

Notes

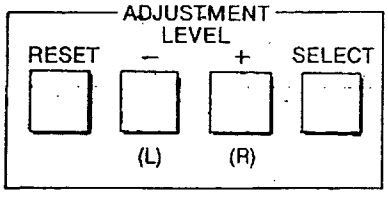
- The selected mode will be retained even after the power has once been turned off.
- There may be cases of stereo broadcasts where excessive "noise" will be heard due to a weak incoming signal. By switching the MONO/AUTO STEREO selector to MONO and returning to a monaural mode, the noise should be eliminated.
- When the SAP or BOTH mode is selected and there is no SAP broadcast, no sound is heard from the speaker (in SAP mode).
- The SAP broadcast will always be transmitted with the MAIN broadcast.

ADDITIONAL PICTURE AND SOUND ADJUSTMENT

(Hue: Color: Brightness: Sharpness: Treble: Bass: Balance)

Additional picture and sound adjustments besides the adjustments made by the PICTURE and VOL (volume) buttons can be made as follows although your unit comes with its picture and sound preset at the factory for optimum performance.
The adjustments made can be cleared and the factory preset levels will be restored at once when the **RESET button** is pressed. (A "RESET" indicator will appear for a few seconds.)

Controls are inside the sub control panel.



1 Press SELECT button consecutively until the on-screen display of the item you desire to adjust appears. The display will change as follows:

HUE→COLOR→BRIGHT→SHARP→TREBLE→ BASS →BALANCE→back to HUE

The display will disappear after a few seconds but will appear again when the next step is taken.

2 Press LEVEL –(L)/+(R) button to adjust the selected item.

	Selected item	–(L) Left button	+(R) Right button
PICTURE ADJUSTMENT	HUE	Skin tones become purplish	Skin tones become greenish
	COLOR	For less color intensity	For more color intensity
	BRIGHT	For less brightness	For more brightness
	SHARP	For less sharpness	For more sharpness
SOUND ADJUSTMENT	TREBLE	To decrease treble response	To increase treble response
	BASS	To decrease bass response	To increase bass response
	BALANCE	To emphasize the left speaker's volume	To emphasize the right speaker's volume

On-screen color-bar displays

When any of the above adjustments are made, a colored segmented bar appears on the screen to indicate the appropriate setting level.

- The HUE setting is indicated by the ratio of the red (left) and green (right) segments.
- The COLOR level is indicated by the number of red segments.
- The BRIGHT, SHARP, TREBLE and BASS levels are indicated by the number of green segments.
- The stereo BALANCE is indicated by the ratio of the green (left) and red (right) segments.
- While the VOL or PICTURE button is pressed, the number of green segments show the sound or picture level.

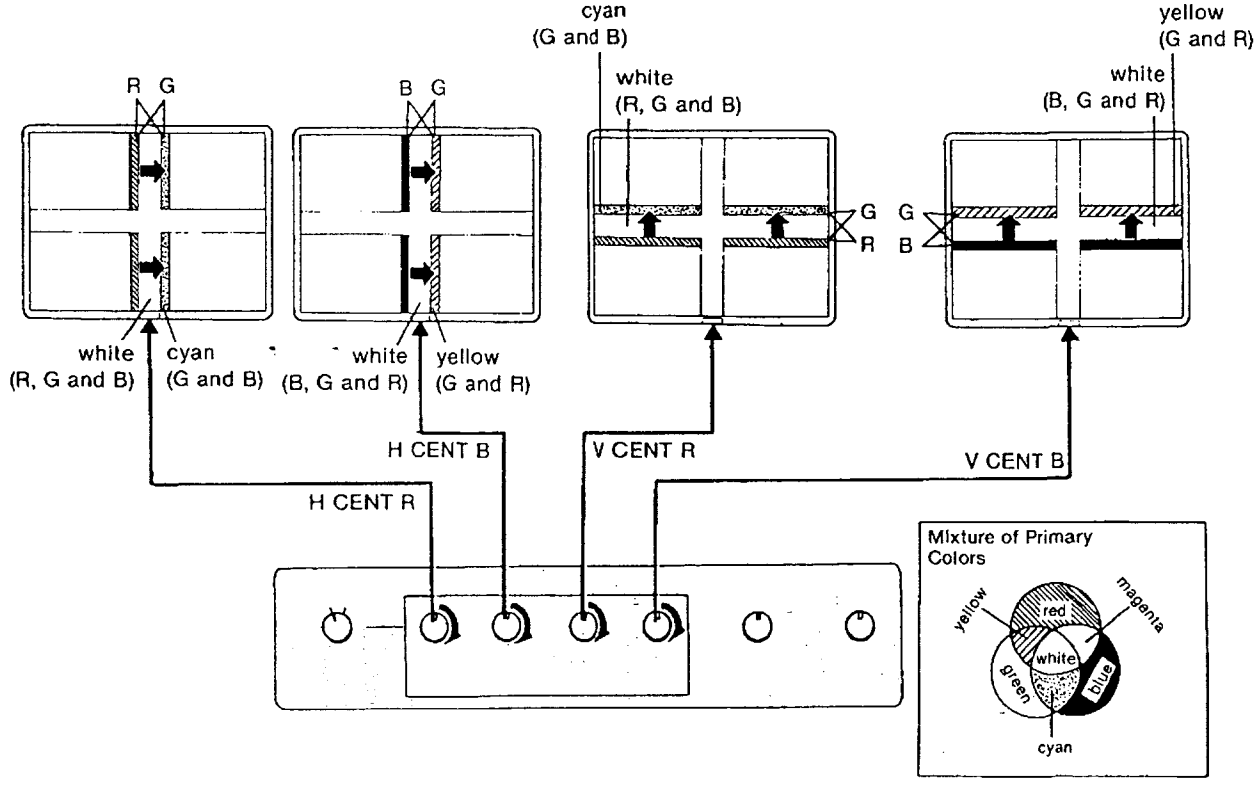
REGISTRATION ADJUSTMENT

When the red, green and blue lines are not be superimposed (the cross may not be seen as white), perform the registration adjustment yourself. Should the difficulty persist, contact your Sony dealer.

Follow steps **1** through **6**.

1 Turn the set on with the POWER switch.
2 Open the registration panel and set the NORM/TEST selector to TEST. A built-in test pattern will be displayed on the screen.
3 Adjust the H CENT(B) and H CENT(R) controls to converge the blue and red vertical lines with the green line.
4 Adjust the V CENT(B) and V CENT(R) controls to converge the blue and red horizontal lines with the green line.

(In the illustration below:
R = Red, G = Green, B = Blue)

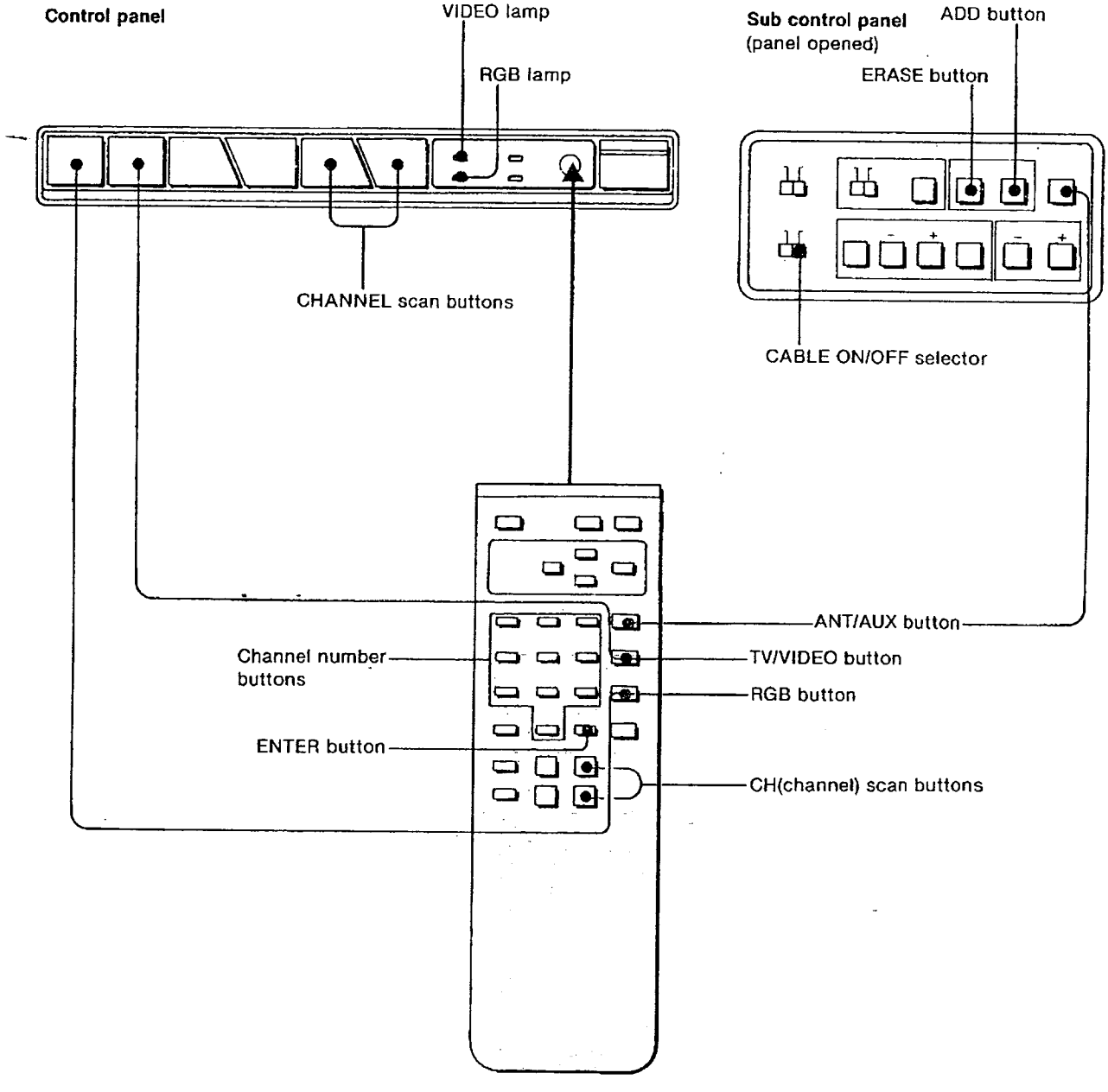


As you turn the controls clockwise, the lines move in the direction indicated in the illustrations. To move the lines in the opposite direction, turn the controls counterclockwise.

5 Repeat steps **3** and **4** until the cross appears white.
6 After the adjustment is completed, set the NORM/TEST selector to NORM and close the registration panel.

PRESETTING CHANNELS

Receivable channels of your set are:
VHF: 2–13
UHF: 14–69
CATV: 1–125
By adding and erasing channels, you can preset your set so that only the desired channels appear in sequence when the CHANNEL +/– are pressed.



PREPARATION

1 **Turn on the set.**
2 **Make sure the following are properly set.**
On-screen "VIDEO 1, 2 or 3", "EXT-A" or "RGB" indicators and the RGB or VIDEO lamp should be off. (Press TV/VIDEO button or RGB button as necessary until they go out.)
3 **According to the channel to be added or erased, check the following and make the necessary changes.**
- CABLE ON/OFF selector:
  For VHF and UHF channels, set to OFF ⊓.
  For cable TV channels, set to ON ⊓.
- On-screen "AUX" indication
  (Press ANT/AUX button as necessary.)
  For VHF, UHF and regular cable TV channels, the indication should be off.
  For pay cable TV channels, the indication should be displayed.

ADDING CHANNELS

1 **Select the channel to be added by pressing the channel number buttons and then ENTER.**
2 **Press ADD.**
A "+" indication will appear on the left of the channel display on the screen, indicating that the channel will appear in the proper numerical sequence when you press CHANNEL +/–.

Repeat steps **1** and **2** for other channels to be added.

ERASING CHANNELS

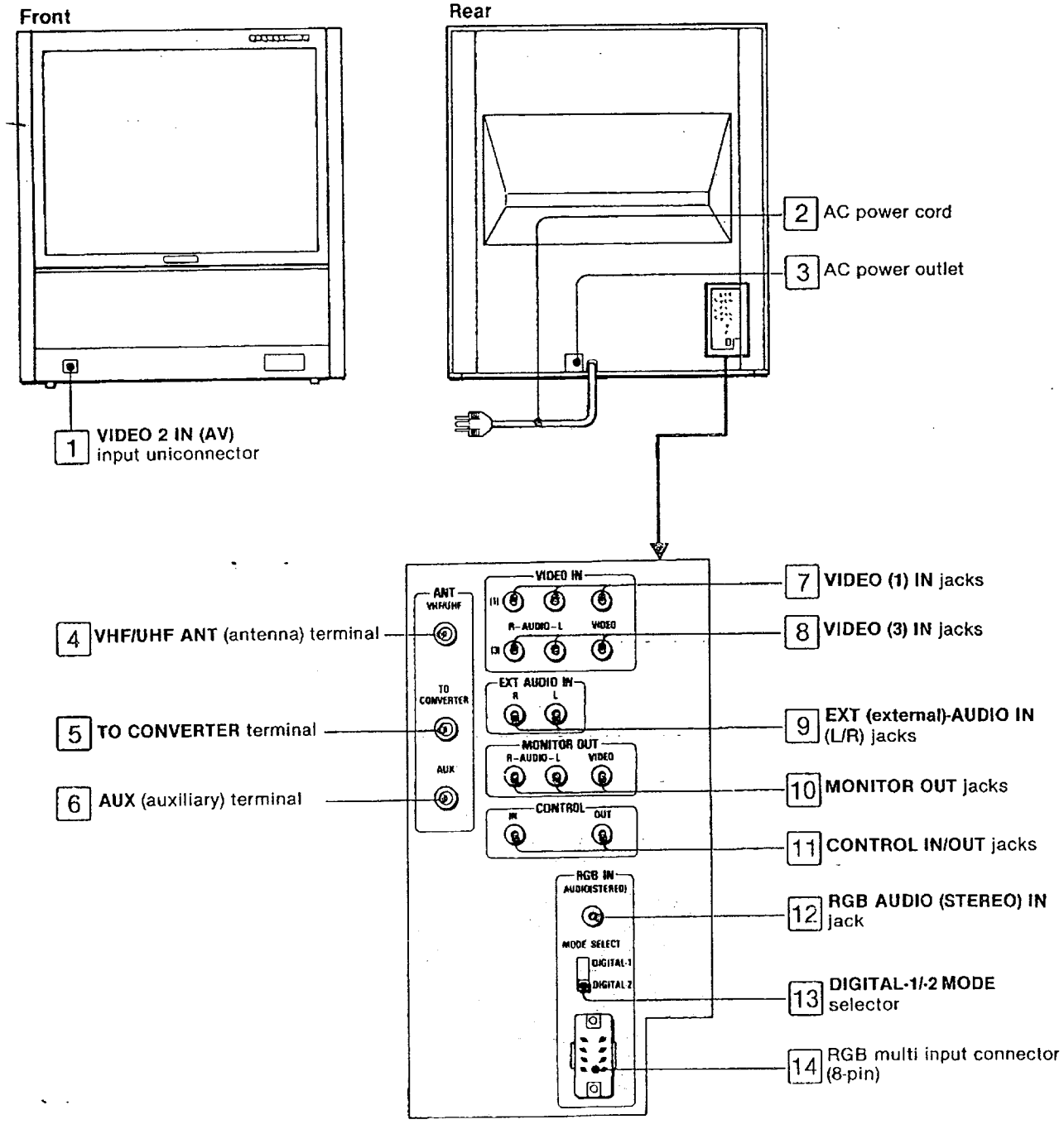
1 **Select the channel to be erased.**
2 **Press ERASE.**
A "–" indication will appear on the left of the channel display on the screen, indicating that the channel has been erased. When CHANNEL +/– are pressed, you will see that the channel is skipped over in the numerical sequence.

Repeat steps **1** and **2** for other channels to be erased.
To add erased channels again, follow the steps in "ADDING CHANNELS".

Note
You cannot erase a VHF or UHF channel from the memory and retain a cable TV channel which has the same number, or vice versa. If either a VHF/UHF channel or a cable with the same number is to be kept in the memory, do not erase the number.

APPLICATIONS WITH OTHER OPTIONAL EQUIPMENT

This unit is equipped with various input/output jacks and terminals for your desired equipment to be connected.
For details on the various optional connecting cables to be used, see "OPTIONAL AUDIO/VIDEO CONNECTING CABLES" on page 14.



[1] **VIDEO 2 IN (input) AV uniconnector (AV jack)**
Connect to the video and audio output jacks of a video cassette recorder or microcomputer. Video and audio signals are transmitted simultaneously.

[2] **AC power cord**

[3] **AC power outlet**
This outlet provides AC power of 100W max. to the connected microcomputer, etc.

CAUTION: Do not connect electrical home appliances such as electric irons, fans, or other high-wattage equipment to this outlet.

[4] **VHF/UHF ANT terminal**
[5] **TO CONVERTER terminal**
[6] **AUX (auxiliary) terminal**
} See "ANTENNA/CABLE CONNECTION" on page 21.

[7] **VIDEO (1) IN jacks**
[8] **VIDEO (3) IN jacks**
Connect to the video and audio output jacks of a VCR*, video disc player, etc.

◎ —	VIDEO jack (phono, yellow)	→ to video output jack
◎ —	AUDIO L jack (phono, white)	→ to audio L (left channel) output jack
◎ —	AUDIO R jack (phono, red)	→ to audio R (right channel) output jack

*You will achieve better picture and sound quality than by connecting the VCR only to the antenna terminal.

[9] **EXT AUDIO IN (L/R) jacks**
An external audio source can be connected to these jacks to be combined with the picture of the selected TV program. Connect to the audio/line output of the audio source.

To view FM simulcasted programs, see page 20.

[10] **MONITOR OUTPUT jacks (phono type)**
Connect to the video and audio input jacks of a video cassette recorder or color monitor. Either the TV or VCR signal selected by the TV/VIDEO button is supplied.
To record only the sound, connect the audio input jacks of a tape recorder to the AUDIO L and R jacks with a connecting cable such as the optional RK-74A.

Note
The RGB signals are not supplied (and therefore will not be recorded on the connected VCR) from these jacks even when the RGB signals are displayed on the screen.

[11] **CONTROL IN/OUT jacks (mini type)**
These jacks are for connecting a future audio or video product also equipped with similar CONTROL IN or OUT jacks for the expansion of your audio-video system.

[12] **RGB AUDIO (STEREO) IN jack (stereo mini type)**
Connect to the RGB AUDIO output jack of microcomputers etc.

[13] **DIGITAL-1/-2 MODE selector**
For computers having intensity output, set to DIGITAL-1.
For computers without intensity output, set to DIGITAL-2.

Note
Some microcomputers having intensity outputs may not function correctly even if this selector is set to DIGITAL-1. In this case, contact your nearest service facility.

[14] **RGB multi input connector (8-pin)**
This connector allows direct RGB hook-up to a microcomputer having RGB output.
When connecting the microcomputer, use a connecting cable with an 8-pin plug that will match the RGB output of the equipment to the pin assignment of this connector designated on page 23.

OPTIONAL AUDIO/VIDEO CONNECTING CABLES

The optional connecting cables to be used for connecting other equipment depend upon what type of audio and video jacks the equipment you desire to connect has. The following charts will help you choose which cable you should use.

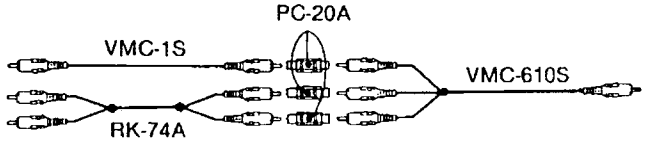
Cables to be connected to the VIDEO 1 and 3 IN jacks

The type of audio and video jacks of the equipment to be connected.		Connecting cable to be used
Video (phono-type) ◎	Audio (L, R) (phono-type) ◎ ◎	VMC-2P3
Video (phono-type) ◎	Audio (mini-type) ◎	VMC-2MP3
Video (phono-type) ◎	Audio (phono-type) ◎	VMC-609MS

Cables to be connected to the VIDEO 2 IN (AV type) uniconnector

The type of audio and video jacks of the equipment to be connected.		Connecting cable to be used
Video (phono-type) ◎	Audio (L, R) (phono-type) ◎ ◎	VMC-610S
Video (phono-type) ◎	Audio (phono-type) ◎	VMC-612MS * *The PC-21 is supplied to the cable for a mini-type audio input.

If you use the connecting cable VMC-610S, extend the cable by using the optional connecting cables VMC-1S and RK-74A with the optional plug adaptors PC-20A (phono ⟷ phono).



The following are few examples of the possible connections.

Notes on connection

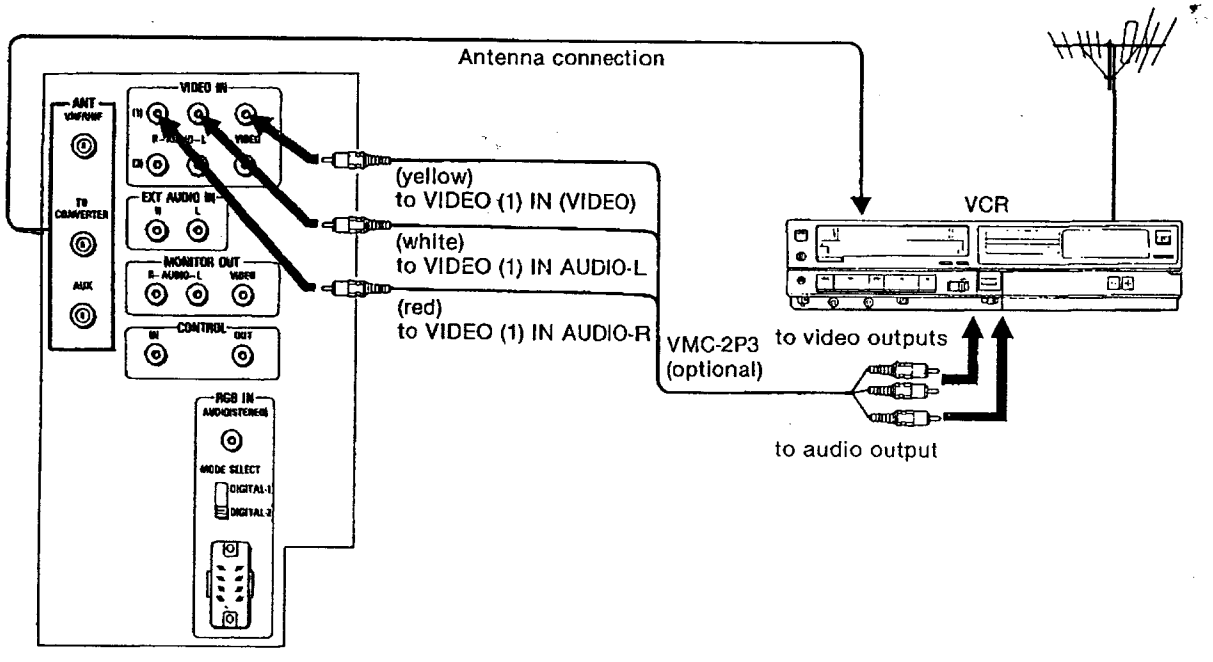
- Before connecting, make sure that the power to each piece of equipment is turned off.
- The plugs should be fully inserted into the jacks. A loose connection may cause hum and noise.
- Match the color when connecting the plugs to the jacks.

VCR CONNECTION

Keep the VCR away from the TV, if the display or sound is affected.

Caution
Television programs, films, video tapes and other materials may be copyrighted. Unauthorized recording of such material may be contrary to the provisions of the copyright laws.

Connecting VCRs that are capable of receiving TV broadcasts

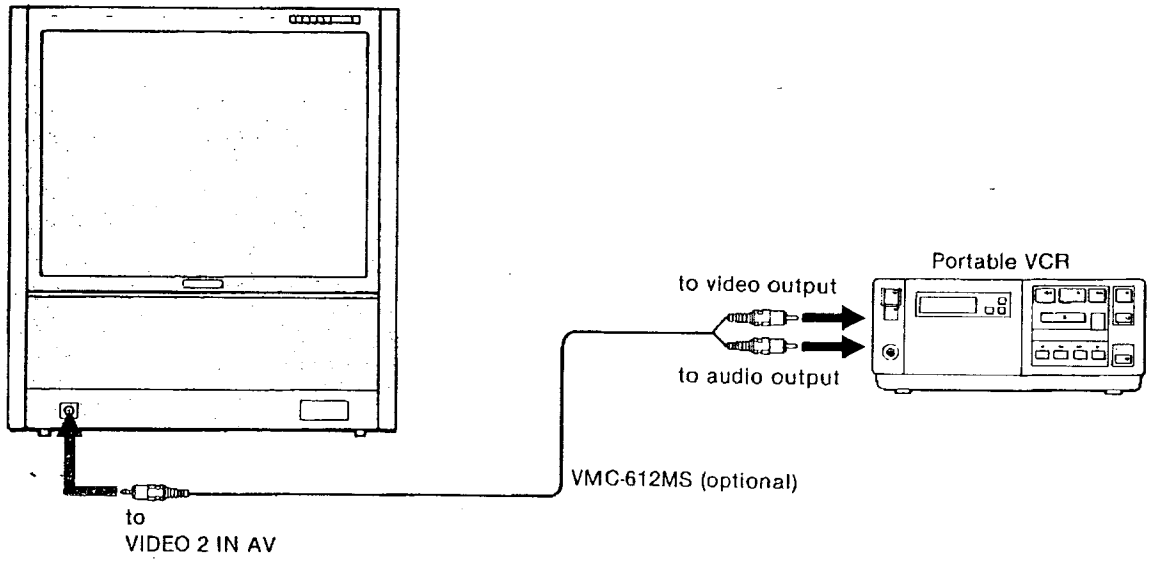


If you desire to connect another VCR, make the similar connection to the VIDEO 3 IN jacks and set VIDEO 3/EXT AUDIO selector to "VIDEO 3".

With this connection, you will be able to...
- View the playback of tapes
- Record TV programs
- Record a TV program while viewing another

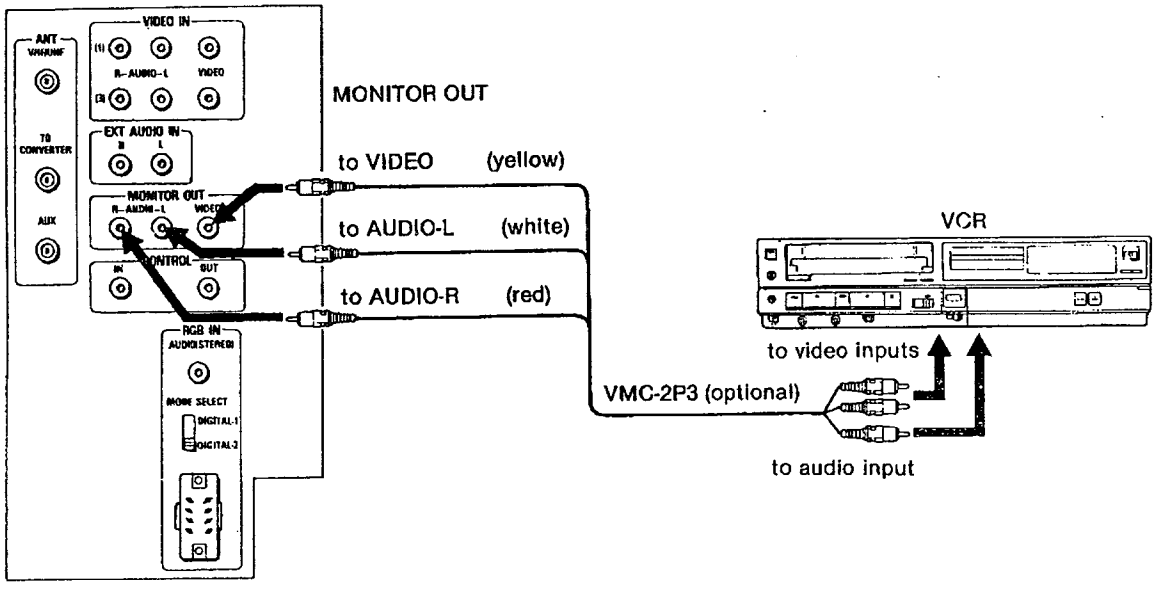
Connecting portable VCRs (that are not equipped with/connected to a TV tuner)

For playing back recorded tapes



Editing tapes by connecting a VCR to the MONITOR OUT jacks

If a VCR is connected to the MONITOR OUT jacks besides another VCR, video disc player, etc., connected to the VIDEO (1/3) jacks or VIDEO 2 IN AV uniconnector, you will be able to edit your own tapes by recording the selected video source (including the TV programs) displayed on the screen. For selecting the desired video source, see page 19.



Note

The RGB input from the RGB multi input connector (8-pin) cannot be recorded.

MICROCOMPUTER CONNECTION

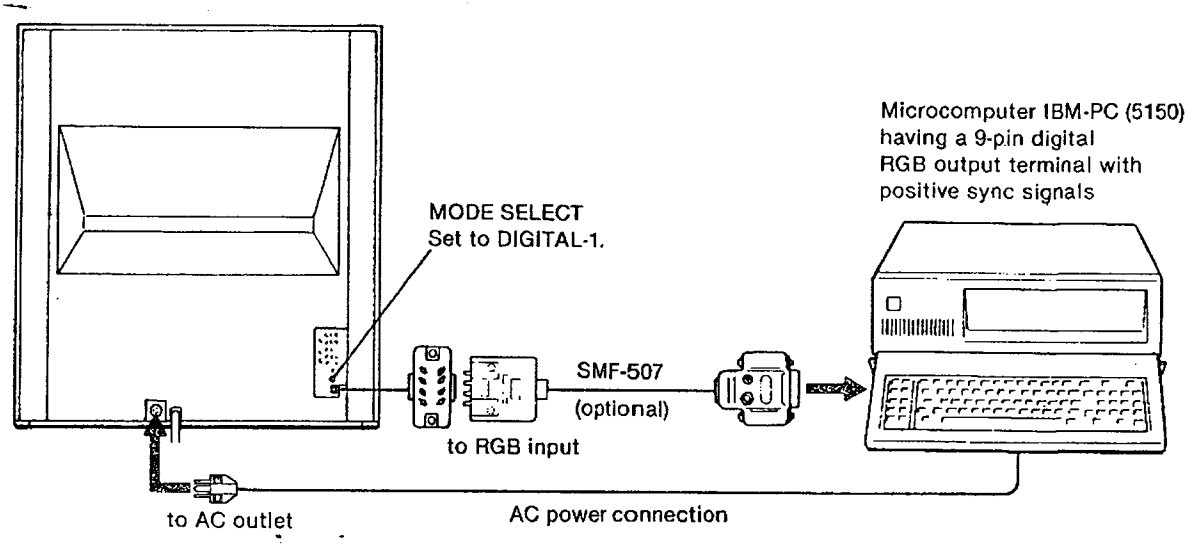
Using the appropriate connecting cable and with the DIGITAL –1/–2 MODE selector of this unit set to the appropriate position, this unit can be used with microcomputers and other equipment having RGB terminals.
In addition, if the equipment to be connected has the RGB audio output jack, connect it to the RGB AUDIO (STEREO) IN jack of the projector.
For details on connection, refer to the instruction manuals of the equipment to be connected.

Note

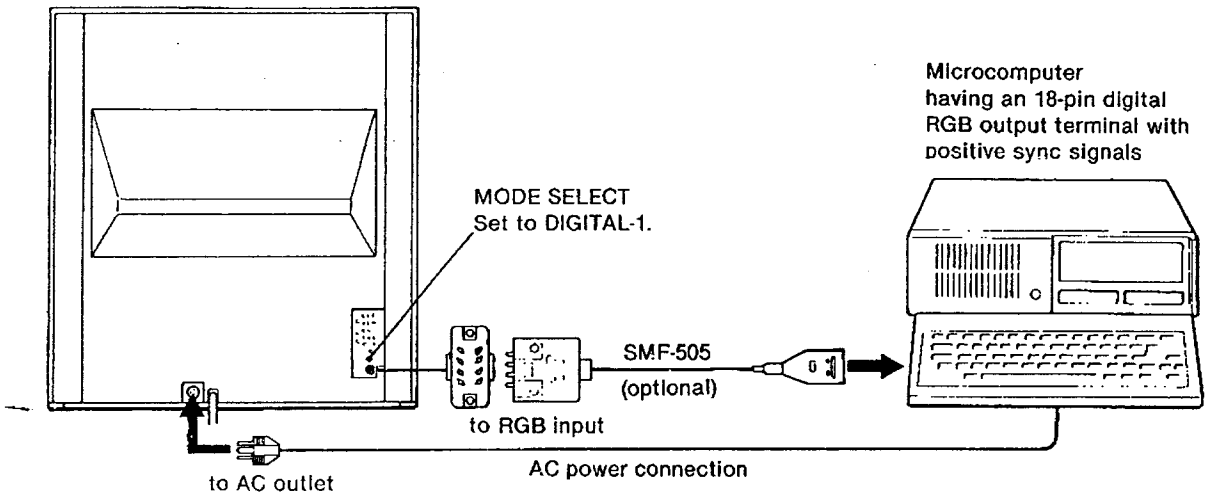
According to the microcomputer to be connected, the connecting cable to be used depends upon the type of RGB output jack of the computer. The cable should arrange the output signals of RGB multi input connector (8-pin) of this set (See page 23).
If you are not sure whether you can use your computer with this set or which connecting cable to use, consult your authorized Sony dealer.

Examples of connections with microcomputers with digital RGB output

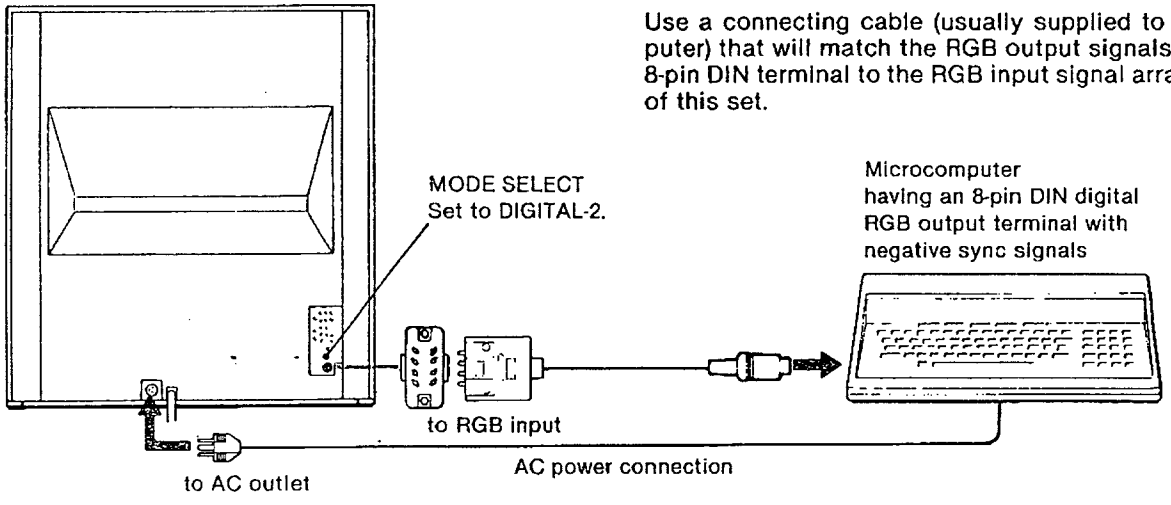
Microcomputers having intensity output



Microcomputers having intensity output



Microcomputers without intensity output

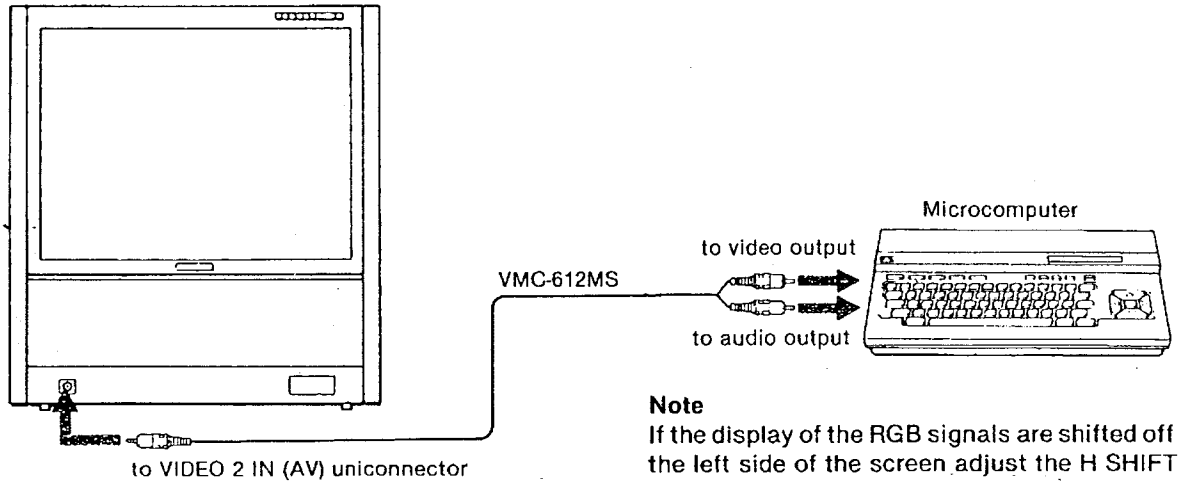


Use a connecting cable (usually supplied to the computer) that will match the RGB output signals from the 8-pin DIN terminal to the RGB input signal arrangement of this set.

Notes

- The monitor cable should arrange the RGB output signals of the connected equipment so that they match the signal assignment of the RGB input connector of this set (See page 23). If you are not sure whether you can use your computer etc., with this set or which monitor cable to use, consult your authorized Sony dealer.
- Some microcomputers having intensity outputs may not function correctly even if this selector is set to DIGITAL-1. In this case, contact your nearest Sony dealer.

Microcomputer with video and audio outputs



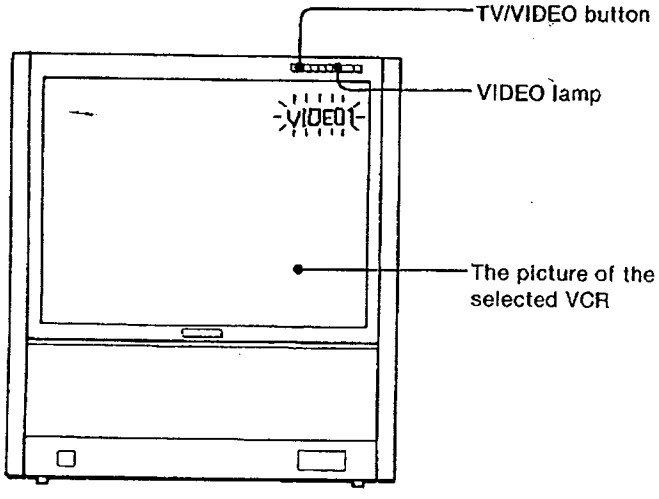
Note

If the display of the RGB signals are shifted off center to the left side of the screen adjust the H SHIFT control.

SELECTING THE VARIOUS AUDIO AND VIDEO SOURCES

VIEWING THE PICTURE OF THE EQUIPMENT CONNECTED TO THE VIDEO (1/3) IN or VIDEO 2 IN (AV) UNICONNECTOR

(If the "RGB" indication is lit, press RGB button to turn it off.)
Press the TV/VIDEO button until the "VIDEO 1, 2 or 3" indication of the VIDEO input jacks from which desired the signals to come ffrom appears.
The VIDEO lamp will light up.



Every time you press the TV/VIDEO button, the display will change as follows:

VIDEO 1 → VIDEO 2 → VIDEO 3* → TV channel

Adjust the volume with the VOLUME buttons.

*Set VIDEO 3/EXT AUDIO selector on the sub control panel to "VIDEO 3" if "EXT-A" appears.

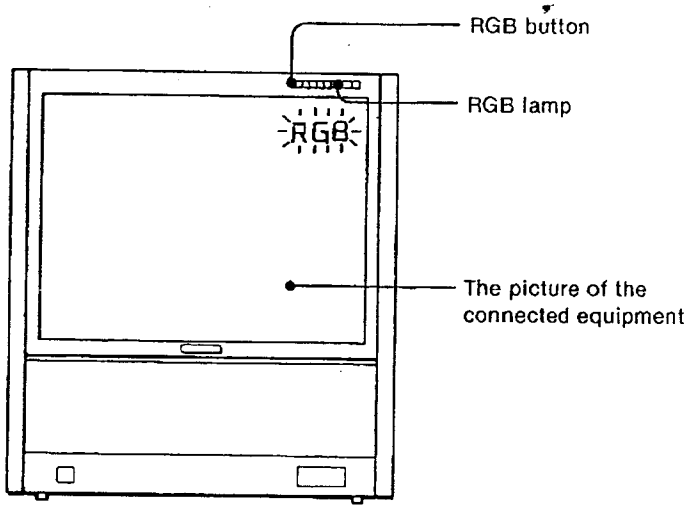
The channel number buttons on the Remote Commander or the CHANNEL scan buttons will not function while the VIDEO lamp is lit.

TO LISTEN TO THE SOUND OF THE AUDIO SOURCE CONNECTED TO THE EXTERNAL AUDIO JACKS

1 Set VIDEO 3/EXT AUDIO selector to "EXT AUDIO".
2 Press TV/VIDEO button as many times as necessary until the on-screen "EXT-A" appears.

VIEWING THE DISPLAY OF THE EQUIPMENT CONNECTED TO THE RGB MULTI INPUT CONNECTOR

Press the RGB button to display the "RGB" indication.
The RGB lamp will light up.



To return to the normal TV program or to the picture of the VCR, press RGB again.

To have the indications remain on the screen, press the DISPLAY button on the Remote Commander.

Notes

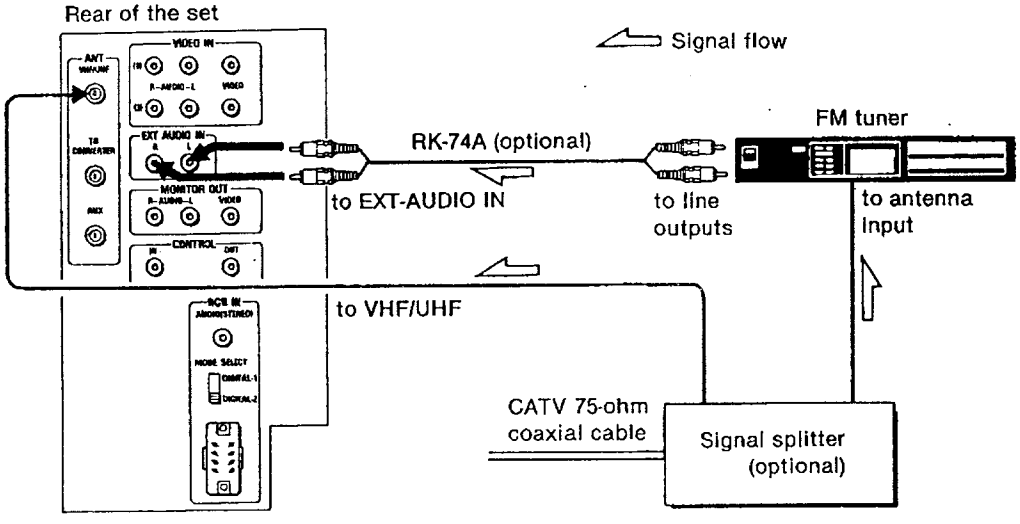
- The HUE, COLOR and SHARP (sharpness) adjustments are non-effective for the displayed RGB input. Adjust the picture with the PICTURE buttons or by adjusting the BRIGHT (brightness).
- The selected source is retained even when the power is turned off once.

ENJOYING FM SIMULCASTED PROGRAMMING

Over-the-cable FM simulcasts

Cable TV companies have also started "simulcasting" some channels like MTV (Music Television) and selected movies in stereo over the cable. In the case of cable stereo programs, however, the audio signal is not sent over the air but sent on FM frequencies over the cable.

By splitting the incoming cable signal and running it to both the TV tuner and an FM tuner/receiver, these cable programs can be enjoyed in stereo over the speakers of the projector as shown below.



Preparation

Make sure the following are properly set.

- Set VIDEO 3/EXT AUDIO to "EXT AUDIO".
- Press TV/VIDEO button as many times as necessary so that the on-screen "EXT A" indication is displayed.
- On-screen "RGB" indication or RGB lamp should be off.
  (Press RGB button as necessary so that it goes off.)
- For over-the-cable FM simulcasts, the CABLE ON/OFF button should be ON ⎓, and depending on the channel to be viewed, the on-screen "AUX" indication should be as follows:
  (Press ANT/AUX button to change as necessary.)
  For regular cable TV channels:
  The indication should be off.
  For pay cable TV channels:
  The indication should be displayed.

Operation

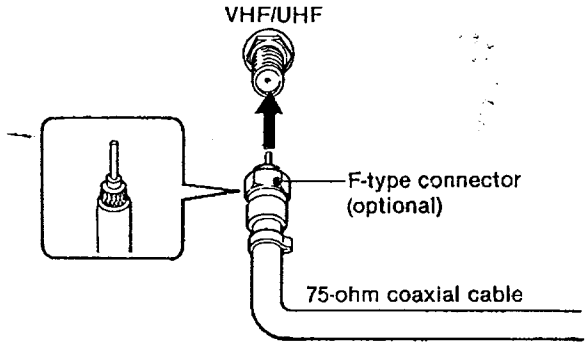
1 Set the FM tuner to the frequency designated by the broadcaster.
2 Operate the set the same as in usual TV viewing.

ANTENNA/CABLE CONNECTION

Using an outdoor antenna may be necessary. Cable TV reception is only possible by connecting a cable supplied by your local cable operator.

Prepare the antenna or cable end using the appropriate connector, and connect the antenna or cable to the antenna terminal of the set. (See A, B, C or D below.)

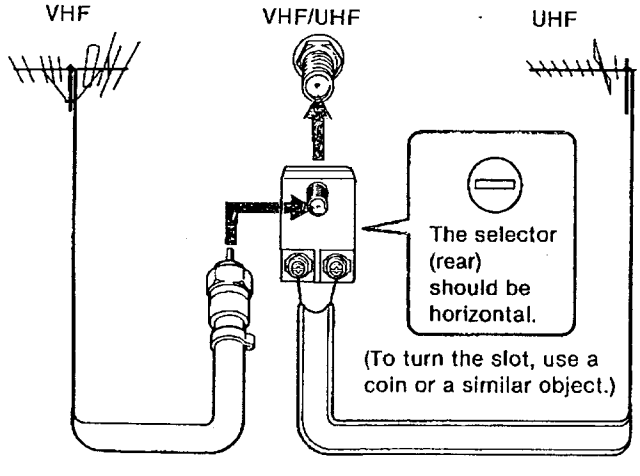
A Combination VHF/UHF antenna, * VHF antenna or CATV cable



*Most combination antennas are equipped with a signal splitter. Take off the splitter and attach the proper connector.

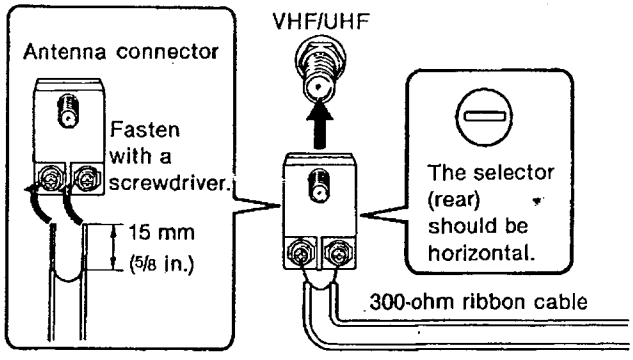
B When both VHF and UHF antennas are connected

Prepare the VHF antenna end using the appropriate connector as illustrated in A.
Attach the supplied antenna connector to the TV antenna terminal, and connect the cables to the connector. (For UHF, see C.)



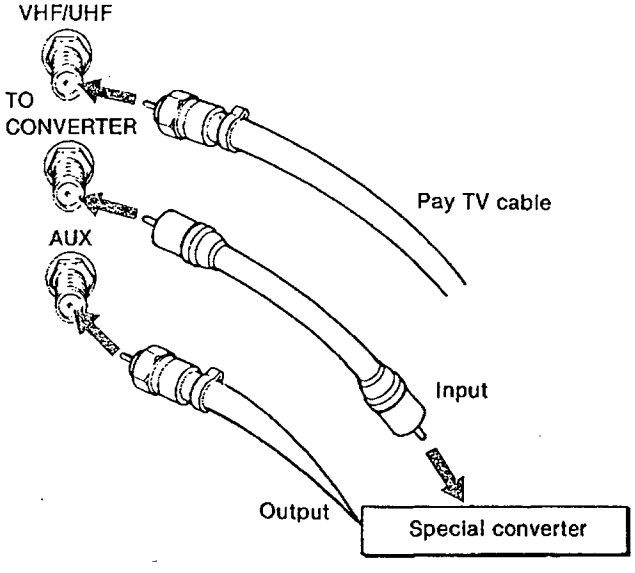
When the cable is connected to the TV in this way, snow and noise may appear in the pictures of the cable TV channels over 37 (W+1).

C UHF antenna only



D Cable with a special converter (decoder)

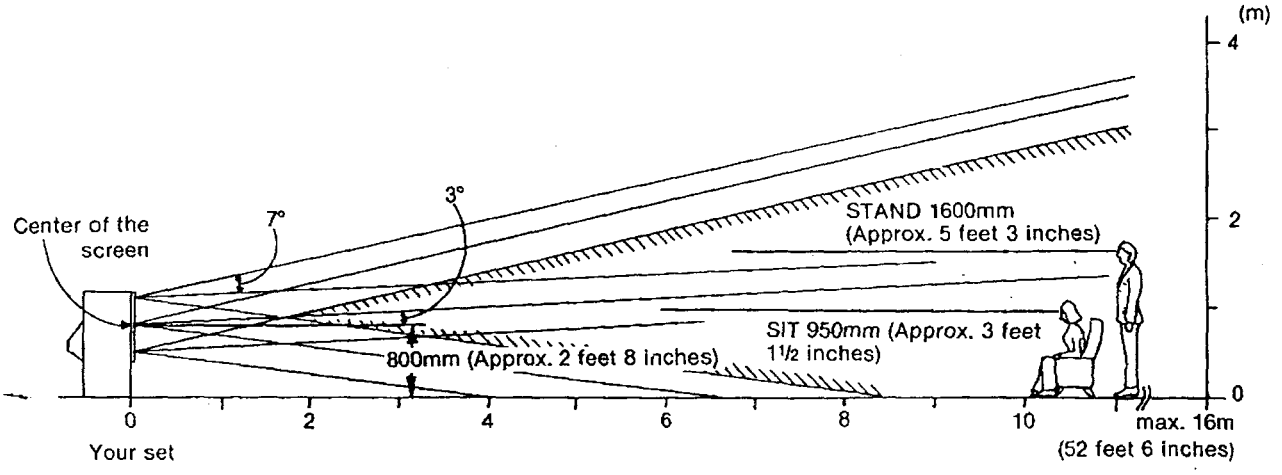
Pay cable TV systems use scrambled or encoded signals and require special converters (decoders)* in addition to the normal cable connection. Connect the converter (decoder) with a 75-ohm coaxial cable (optional).

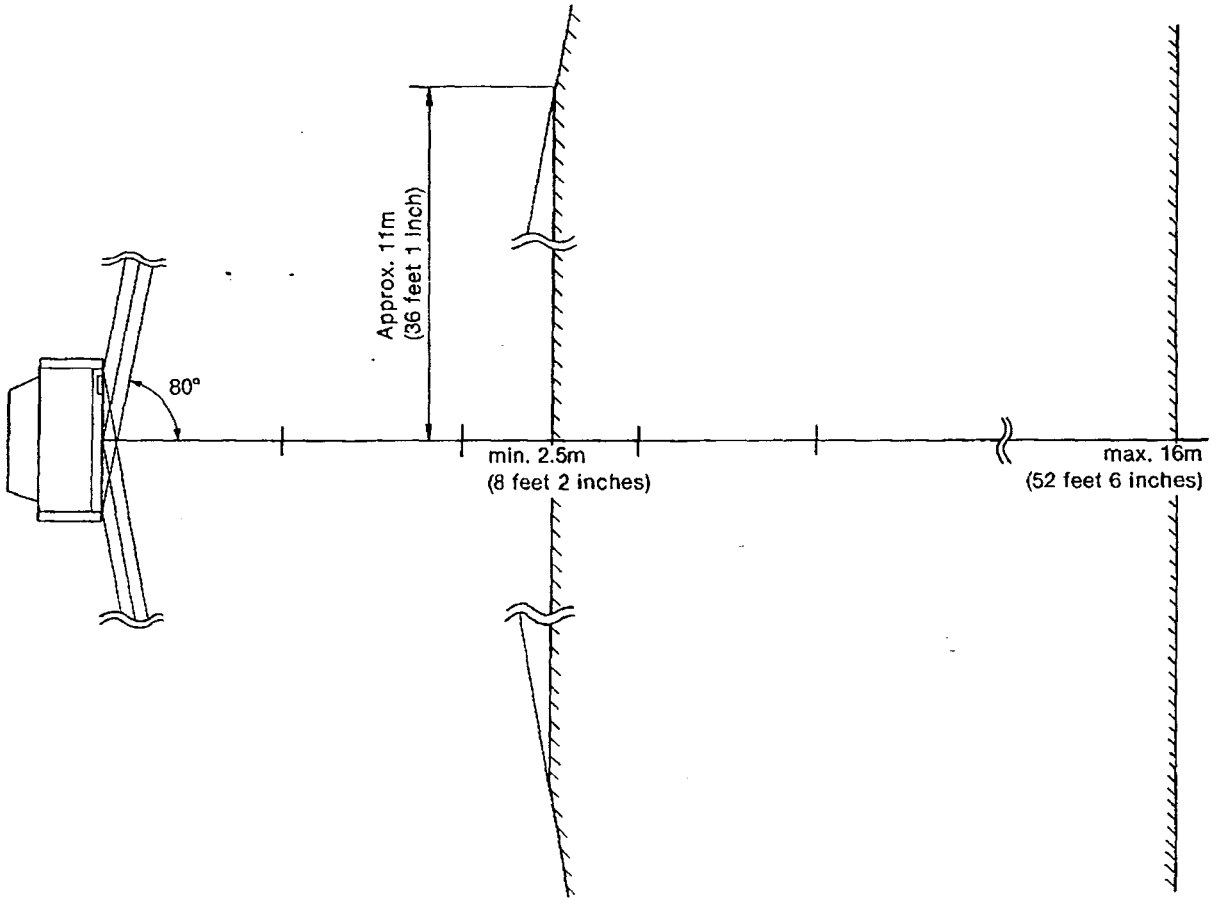


*The special converter (decoder) will be supplied by the cable company.

Note to CATV system installer in the USA:
This reminder is provided to call the CATV system installer's attention to Article 820-22 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

NOTICE ON AUDIENCE AREA





SPECIFICATIONS

Structure — Screen and projector, rear projection type

Projection system — 3-picture tubes, 3 lenses, horizontal in-line system

Picture tube — 5.5 inch high-brightness monochrome tubes, with coolant sealed, dust inhibition anti-static faces

Projection lenses — High-performance, large-diameter hybrid lens F 1.0

Screen material — Acrylic plastic, Fresnel lenticular type

Projected picture size (measured diagonally) — 46 inches

Viewing distance — 2.5m (approx. 8 1/5 ft) minimum to 16m (approx. 52 1/2 ft) maximum

Optimum seating arrangement — Within approx. 80 degrees from center

Screen brightness — Typical 220 foot-Lamberts

Television system — American TV standards

Channel coverage
- VHF: 2–13
- UHF: 14–69
- CATV: 1–125

Antenna — 75-ohm external antenna terminal for VHF/UHF/CATV

Inputs
- VIDEO 1,3 IN (phono jacks)
  - Video: 1Vp-p, 75 ohms unbalanced, sync negative
  - Audio: 408mVrms (100% modulation, 47 kilohms)
- VIDEO 2 IN AV (AV jack)
  - Video: 1V p-p, 75 ohms unbalanced, sync negative
  - Audio: 408mVrms (100% modulation, 47 kilohms)
- RGB multi input (See the diagram)
- RGB AUDIO IN (stereo mini jack)
- CONTROL IN (mini jack) 5Vp-p
- 75-ohm external antenna terminal for VHF/UHF/CATV
- AUX 75-ohm auxiliary antenna terminal

Outputs
- MONITOR OUT (phono jacks)
  - Video: 1Vp-p, 75 ohms unbalanced, sync negative
  - Audio: 408mVrms (100% modulation, 1 kilohm)
- CONTROL OUT (mini jack) 5Vp-p
- TO CONVERTER terminal

Speaker — Three-way speaker system
- Woofer: 12×19cm (4 3/4×7 1/2 inches) 2 units
- Midrange: 5cm (2 inches) dia. 2 units
- Tweeter: 2cm (13/16 inch) dia. 2 units

Power requirements — 120V AC, 60Hz

Power consumption — 186W (max.), 135W (average)
4W (in standby condition)

Dimensions — 1106 × 1213 × 640 mm (w/h/d)
(43 1/2 × 47 3/4 × 25 1/4 inches)

Weight — 73 kg (161 lb. 3 oz.)

Accessories supplied
- Remote Commander RM-730 (1) with 2 size AA batteries
- Antenna connector (1)

Optional accessories
- Connecting cables (See page 14)
- Cables for RGB connector
  - SMF-502 (8-pin←→25-pin)
  - SMF-505 (8-pin←→18-pin)
  - SMF-507 (8-pin←→ 9-pin)

Remote Commander RM-730

Remote control system — Infrared control

Power requirements — 3V DC
Battery size AA × 2
(IEC battery designation R6)

Dimensions — Approx. 55 × 19.8 × 175 mm (w/h/d)
(2 1/4 × 25/32 × 7 inches)

Weight — 130g (4 1/2 oz), including batteries

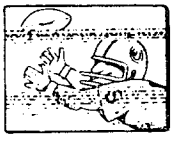
Design and specifications are subject to change without notice.

RGB multi input (8-pin plug)

Pin No.	Signal assignment
1	Intensity input
2	Red input
3	Green input
4	Blue input
5	Ground
6	Ground
7	H. sync or composite sync
8	V. sync

TROUBLESHOOTING

Disturbances in picture and sound can often be eliminated by checking the symptoms and following the suggestions listed below.

	SYMPTOM	CHECK AND ADJUST
GENERAL	**Poor or no picture (screen not lit), good sound**	● Adjust PICTURE. ● Adjust BRIGHT with the ADJUSTMENT buttons. ● Check antenna/cable connections.
	Good picture, no sound	● Press VOLUME +. ● Release MUTING on the Remote Commander. ● Check that the MTS button is set correctly. ● Are the speakers connected firmly? ● Is the VIDEO 3/EXT-AUDIO selector set correctly?
	No picture (screen not lit), no sound	● Is POWER switched on? Power in outlet? ● Check that the TV/VIDEO and/or RGB button is set correctly.
	No color	● Is it a color program? ● Is the color adjustment correctly made with the SELECT and −/(L) or +/(R) buttons?
	Snow and noise only	● Is it an active or the correct channel? ● Check the CABLE ON/OFF selector setting. ● Check that the ANT/AUX button is set correctly. ● Check antenna connections.
	 **Dotted lines or stripes**	This is often caused by local interference. (ex. cars, neon signs, hairdryers etc.) Adjust antenna for minimum interference.
	Double images or ghosts	Reflections from nearby mountains or buildings often cause this problem. A highly directional outdoor antenna or CATV cable may improve the picture.
	Try another channel. It could be station trouble.	

	SYMPTOM	CHECK AND ADJUST
CONNECTED EQUIPMENT	**No picture and/or sound for the connected equipment**	● Check that the TV/VIDEO button is set correctly. ● Check that the RGB button is set correctly. ● Are the connections made firmly? ● Check that the VIDEO 3/EXT-AUDIO selector is set correctly. ● Is the power of the connected equipment turned on? ● Is the connected equipment set correctly?

If the problem still cannot be solved, contact your nearest service facility.